

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
25 April 2002 (25.04.2002)

PCT

(10) International Publication Number
WO 02/33518 A2

(51) International Patent Classification⁷: **G06F**

(21) International Application Number: PCT/US01/46145

(22) International Filing Date: 22 October 2001 (22.10.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/242,384 20 October 2000 (20.10.2000) US

(71) Applicant (for all designated States except US): **INTERNATIONAL BARCODE CORPORATION** [US/US]; Suite 3300, 551 5th Avenue, New York, NY 10176 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **BORDNER, Rhett** [US/US]; International Barcode Corporation, Suite 3300, 551 5th Avenue, New York, NY 10176 (US). **BARENBURG, Jordan** [US/US]; International Barcode Corporation, Suite 3300, 551 5th Avenue, New York, NY 10176 (US).

(74) Agents: **SCHEER, Michael, J.** et al.; Ostrolenk, Faber, Gerb & Soffen, LLP, 1180 Avenue of the Americas, New York, NY 10036 (US).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

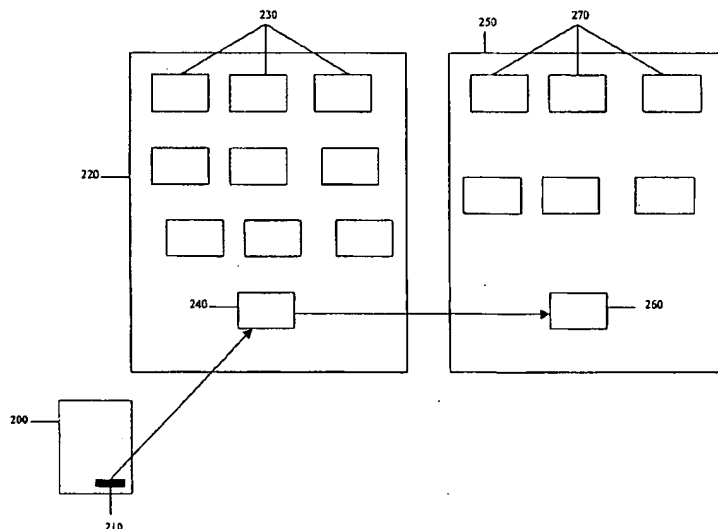
(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

[Continued on next page]

(54) Title: SYSTEM AND METHOD FOR LINKING A PAPER BASED BARCODE TO A WEBPAGE



(57) Abstract: A system and method for linking printed media to the Internet using bar code technology. A specially coded bar code is imprinted on a page representing a Uniform Resource Locator address of a web page on the Internet. An encoded scanner is used to scan the barcode and translate it into the URL address. The scanner is coupled to a device connected to the Internet and the browser of the device uses the URL to connect to the targeted web page. The web page contains further information related to the subject matter found on the printed material. In a preferred embodiment, the printed material is an advertisement and the additional material found on the web page further describes the advertised product or service, or enables the customer to purchase the product or service.

WO 02/33518 A2



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

-1-

SYSTEM AND METHOD FOR LINKING A PAPER BASED BAR CODE TO A WEBPAGE

5 FIELD OF THE INVENTION

The present invention generally relates to providing consumers with detailed information and more particularly to a system and method for linking the consumer to detailed information on an Internet site using a bar code and bar code scanner.

BACKGROUND OF THE INVENTION

Bar codes have historically been used in manufacturing and retail environments to keep track of inventory. Recognizing the potential of the bar code, scanners were developed to allow retailers to scan items during check out. This scanning simultaneously generated sales total for the cashier and the consumer as well as tied into the retail's store's purchasing department to control inventory.

Recently a further advantage of the bar code has been recognized as a connection between the brick and mortar "real world" and the Internet. As most products contain a bar code that uniquely describe the product, it has been recognized that with this information in hand (after scanning), a user can link to the Internet to find out more about that particular product. A further advance on this concept is that some have been printing bar codes in printed media that directly link the user to an Internet site related to the information in the printed media.

-2-

One significant drawback to the prior art thus far developed is what the user can do once the bar code in the physical world has brought him or her to a web page on the Internet.

5 **SUMMARY OF THE INVENTION**

 The present invention is a system and method for linking printed media to the Internet using bar code technology. A specially coded bar code is imprinted on a page of printed material such as an advertisement. The barcode represents a Uniform Resource Locator (URL) address of a web page on the Internet. An encoded scanner is used to scan the barcode and translate it into the URL address. The scanner is coupled to a device connected to the Internet and the browser of the device uses the URL to connect to the targeted web page. The web page contains further information related to the subject matter found on the printed material. In a preferred embodiment, the printed material is an advertisement and the additional material found on the web page further describes the advertised product or service, or enables the customer to purchase the product or service.

 The web page is hosted in an Internet site of the operator of the present invention. The site also contains the web pages of other clients of the operator. As a customer is directed to a particular web page by the barcode, the customer has several navigation options. First, the customer can use navigation command found with the web page itself. In this case, the customer will be linked out of the operator's site and directed to the site and web pages of the client that sponsored the original printed material. Alternatively, the customer may navigate to other web pages found on the operator's site. These other web pages represent pages of other clients of the operator. As with the page described above, the customer is able to

-3-

navigate to the site of the other clients from the pages found on the operator's site.

BRIEF DESCRIPTION OF THE DRAWINGS

5 For the purposes of illustrating the present invention, there is shown in the drawings a form which is presently preferred, it being understood however, that the invention is not limited to the precise form shown by the drawing in which:

Figure 1 depicts codes that can be used to encode a scanning
10 device to enable the linking of the present invention; and

Figure 2 illustrates the system and method of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

15 The present invention is a system and method for connecting from a specific printed media to a Uniform Resource Locator (URL) on the World Wide Web (WWW). In one embodiment of the present invention, a specially constructed bar code is placed in the print media. The bar code itself represents the URL address. The bar code is read with a
20 conventional, but specially encoded reader, CCD scanner, laser scanner, wedge or any other scanning engine. Portions of a specific URL are encoded as a prefix into the barcode reader, CCD scanner, laser scanner, wedge or any other scanning engine capable of both encoding alpha numeric symbols and decoding specially constructed bar codes.

25 Such an encoded barcode reader is then capable of reading the alpha numeric symbols of a barcode representing the URL address. When swiped by the prefix encoded reader, CCD scanner, laser scanner,

-4-

wedge or other scanning engine, the barcode points an Internet browser to a URL on the WWW that is represented by the barcode.

Figure 1 illustrates one manner in which a reader, CCD scanner, laser scanner, wedge or scanning engine can be encoded. The device is first enabled and the start and prefix codes 100 are scanned. The device is then encoded using the codes 110. The reader is thus encoded to have the prefix <http://www.r2j.n>. A bar code can then be constructed to have the following alpha numeric symbols: et.net. With a browser open, and on the WWW, reading or scanning this bar code with it's encoded alpha numeric string, in conjunction with the encoded scanner would take the user to a URL <http://www.r2j.net>.

Fig. 2 illustrates the operation of the method and system of the present invention. A customer who is reading printed material 200 desires to learn more about the information printed thereon. In a preferred embodiment, the printed material 200 is an advertisement in, for example, a magazine. Alternatively, the printed material 200 could contain a news article and the customer desires other or background information related to the article. In order to link to the additional information, the customer scans the barcode 210 printed on the page of the printed material 200 using the encoded scanner (not shown) as described above. In a preferred embodiment, the barcode is constructed as described above and the scanner used is encoded as described above. Any alternative type of barcode and scanner can be used, so long as the scanned barcode translates into the proper URL address as described above.

The scanner is coupled to a device (not shown) that is connected to the Internet. In a preferred embodiment, the device is a

-5-

Personal Computer employing a browser such as Netscape™ or Microsoft Internet Explorer™.

Alternatively, the device can be a workstation, a Personal Digital Assistant (PDA), a web enabled cellular telephone, a web enabled television or any other web enabled device for example. With the browser open, the URL translated from the barcode 210 will link the computer to an Internet website 220 operated by the operator of the system of the present invention. Specifically, the URL will link the customer directly to a page 240 on the website 220 that contains the further information related to the printed material 200.

In the case of the preferred embodiment of advertising, the web page 240 can contain, for example, further information related the product or service being advertised in printed material 200. The web page 240 can contain ordering information, colors, sizes, places that sell or provide the product or service, pricing information, or virtually any other additional information that the author or the printed material 200 wants to convey to the customer.

Although in the preferred embodiment of the present invention involves printed material (e.g., advertising) that links to the web page, the invention can be used with respect to any information that can include a barcode to link to further information. For example, a barcode can be included as part of a National Crime Information Center (NCIC) code for identifying fingerprints. The bar code can link the inquiring party (e.g., a law enforcement agent) to further information related to the subject matter (e.g., a suspect). As with the advertising embodiment, the further information is contained on an Internet web page, a URL of which is represented by the bar code.

-6-

A significant aspect of the present invention is the navigation capability. If the user selects a navigation command from within the web page 240 itself, the customer will be directed to the web site 250 of the author of the printed material, specifically to a page 260 that is linked to page 240 on site 220. In the case of the advertising embodiment, where the author of the printed material 200 is a merchant, the page 260 might be the ordering page for the merchant. Alternatively, the page 260 might describe other similar products or services offered by the merchant. There are virtually no constraints on the choice of what page 260 to which the page 240 can be linked. From page 260, the customer is able to navigate to other pages 270 on the merchant's site 250

In an alternative method of navigation, the customer, while viewing page 240, is able to navigate to other pages 230 hosted on the site 220 of the operator. In preferred embodiment, these other pages 230 represent pages of the other merchants that are members of the system of the present invention. For example one of the pages 230 might be from a watch merchant while another of the pages 230 might be car merchant. As with page 240, the other pages 230 found on site 220 are linked to the site of the merchant, as described above with respect to site 250. Alternatively, if the merchant does not have a site of its own, all of the merchant's web pages 230 can be hosted on site 220.

Using the present invention the clients (e.g., merchants) of the operator of the present invention provide their customers with a quick and accurate opportunity to get information and to purchase products or content that they have read about in print ads or text. The present invention thus acts as the conduit of choice for clients to maximize their advertising dollars. The present invention connects the clients print advertisements 200 to specific web based product and content 240 contained on website 220

-7-

using the bar coded hyperlinks 210 embedded in the client's print media 200.

By targeting the customers to whom the scanning devices are provided (or the codes for encoding a standard scanning device as described above) the present invention enables an interested consumer within a targeted demographic the ability to access the merchant's products quickly and with accuracy resulting in increased sales. In a preferred embodiment of the present invention the scanning devices are provided (or the codes for encoding a standard scanning device as described above) is provided free of charge. These customers can be specifically targeted, for example, using a subscription list for a particular magazine.

The operator of the system embodied in site 220 can derive income, in part, from verified click throughs to the web pages (e.g., 260 on site 250). Additional revenue can be generated when click throughs result in an actual purchase from merchant operating the site 250. There are tens of thousands of global brick and mortar businesses that have a web site such as site 250 and offer their products for sale in print media such as 200. Each of these businesses can use and benefit from the system and method of the bar code linking solution of the present invention. There are even more companies who do not have a website 250, who would want the operator of site 220 to link their advertisements or content 200 with corresponding web pages 230 on web site 220 in order to increase sales.

In regard to the interaction of the operator of site 220 and its clients (e.g., merchants), the merchant preferably provides the operator with a list of opt in customers for delivery of free bar code readers and scanners. The operator specially codes and provides the merchant with a barcode 210 for insertion in the merchant's print advertisement 200. As described above the barcode serves to link the customer's browser to the

-8-

webpage 240 on site 220. The page 240 can be provided to the operator by the merchant, or the operator itself can develop the page 240 for the merchant. In a preferred embodiment, the merchant agrees to be charged a fee only if a consumer visits their ads representation on targeted web page 240 using the barcoded hyperlink 210. All click throughs into and out of site 220 are authenticated by a recognized Internet monitoring service. As described above, these clickthroughs represent income for the operator of site 220. Additionally the merchant can agree to pay a negotiated percentage of any sales that result of the clickthroughs.

In contrast to the prior art, the present invention is a "plug and buy", "plug and play" service that is easy to use. It employs universally accepted bar code symbology and readers. In the preferred embodiment, there is no charge to the consumer as the scanners is given away for free and allows for a predetermined demographic base of customers.

Although the present invention has been described in relation to particular embodiments thereof, many other variations and other uses will be apparent to those skilled in the art. It is preferred, therefore, that the present invention be limited not by the specific disclosure herein, but only by the gist and scope of the disclosure.

-9-

We claim:

1 1) A method for providing a connection from printed media
2 to material located on at least one first Internet site, said method
3 comprising:
4 embedding a Uniform Resource Locator in a graphic image
5 located in said printed material;
6 maintaining at least one second Internet site represented by
7 said Uniform Resource Locator;
8 providing access to said at least one second Internet site as a
9 function of said Uniform Resource Locator; and
10 providing access to said material located on said at least one
11 first Internet site from said at least one second Internet site.

1 2) The method of claim 1, wherein said graphic image is a
2 bar code.

1 3) The method of claim 2, further comprising extracting said
2 Uniform Resource Locator from said bar code using at least one bar code
3 reading device.

1 4) The method of claim 3, wherein said at least one bar code
2 reading device includes at least one of a scanner, optical scanner, CCD
3 scanner, laser scanner, pen reader, and wedge.

1 5) The method of claim 3, further comprising extracting said
2 Uniform Resource Locator from bar code and translating said Uniform
3 Resource Locator into an Internet site address.

-10-

1 6) The method of claim 5, further comprising using said
2 Internet site address in a browser to connect to said at least one second
3 Internet site.

1 7) The method of claim 1, wherein said at least one first
2 Internet site and said at least one second Internet site are operated by one
3 party.

1 8) The method of claim 1, wherein said at least one first
2 Internet site and said at least one second Internet site are operated by at
3 least two different parties.

1 9) The method of claim 1, wherein said step of providing
2 access to said at least one second Internet site further comprises providing
3 access to at least one first page on said at least one second Internet site
4 from a second page on said at least one second Internet site.

1 10) The method of claim 9, wherein said at least one first
2 page on said at least one second Internet site and said second page on said
3 at least one second Internet site concern at least two different parties.

1 11) The method of claim 9, further comprising providing
2 access from said at least one first page on said at least one second Internet
3 site to said at least one first Internet site.

1 12) The method of claim 11, wherein said at least one first
2 Internet site and said at least one second Internet site are operated by
3 different parties.

-11-

1 13) A method for using a connection from printed media to
2 material located on at least one first Internet site, said method comprising:
3 receiving a Uniform Resource Locator embedded in a bar
4 code in said printed material, said Uniform Resource Locator representing
5 at least one second Internet site;
6 extracting said Uniform Resource Locator from said bar code
7 using at least one bar code reading device;
8 translating said Uniform Resource Locator into an Internet
9 site address;
10 using said Internet site address in a browser to connect to said
11 at least one second Internet site; and
12 accessing said material located on said at least one first
13 Internet site from said at least one second Internet site.

1 14) The method of claim 13, wherein said step of connecting
2 to said at least one second Internet site further comprises accessing at least
3 one first page on said at least one second Internet site from a second page
4 on said at least one second Internet site.

1 15) The method of claim 14, wherein said at least one first
2 page on said at least one second Internet site and said second page on said
3 at least one second Internet site concern at least two different parties.

1 16) The method of claim 14, further comprising accessing
2 said at least one first Internet site from said at least one first page on said at
3 least one second Internet site.

-12-

1 17) The method of claim 16, wherein said at least one first
2 Internet site and said at least one second Internet site are operated by
3 different parties.

1 18) The method of claim 13, wherein said at least one first
2 Internet site and said at least one second Internet site are operated by one
3 party.

1 19) The method of claim 13, wherein said at least one first
2 Internet site and said at least one second Internet site are operated by at
3 least two different parties.

1 20) A system for providing a connection from printed media
2 to material located on at least one first Internet site, said system
3 comprising:
4 a graphic image comprising an embedded Uniform Resource
5 Locator, said graphic image located in said printed material; and
6 at least one second Internet site represented by said Uniform
7 Resource Locator,
8 wherein access to said at least one second Internet site is
9 provided as a function of said Uniform Resource Locator, and access to
10 said material located on said at least one first Internet site is provided from
11 said at least one second Internet site.

1 21) The system of claim 20, wherein said graphic image is a
2 bar code.

-13-

1 22) The system of claim 21, further comprising at least one
2 bar code reading device structured to extract said Uniform Resource
3 Locator from said bar code and to translate said Uniform Resource Locator
4 into an Internet site address.

1 23) The system of claim 22, wherein said at least one bar
2 code reading device includes at least one of a scanner, optical scanner,
3 CCD scanner, laser scanner, pen reader, and wedge.

1 24) The system of claim 22, further comprising a browser
2 structured to use said Internet site address to connect to said at least one
3 second Internet site.

1 25) The system of claim 20, wherein said at least one first
2 Internet site and said at least one second Internet site are operated by one
3 party.

1 26) The system of claim 20, wherein said at least one first
2 Internet site and said at least one second Internet site are operated by at
3 least two different parties.

1 27) The system of claim 20, wherein said step of providing
2 access to said at least one second Internet site further comprises providing
3 access to at least one first page on said at least one second Internet site
4 from a second page on said at least one second Internet site.

-14-

1 28) The system of claim 27, wherein said at least one first
2 page on said at least one second Internet site and said second page on said
3 at least one second Internet site concern at least two different parties.

1 29) The system of claim 27, further comprising providing
2 access from said at least one first page on said at least one second Internet
3 site to said at least one first Internet site.

1 30) The system of claim 29, wherein said at least one first
2 Internet site and said at least one second Internet site are operated by
3 different parties.

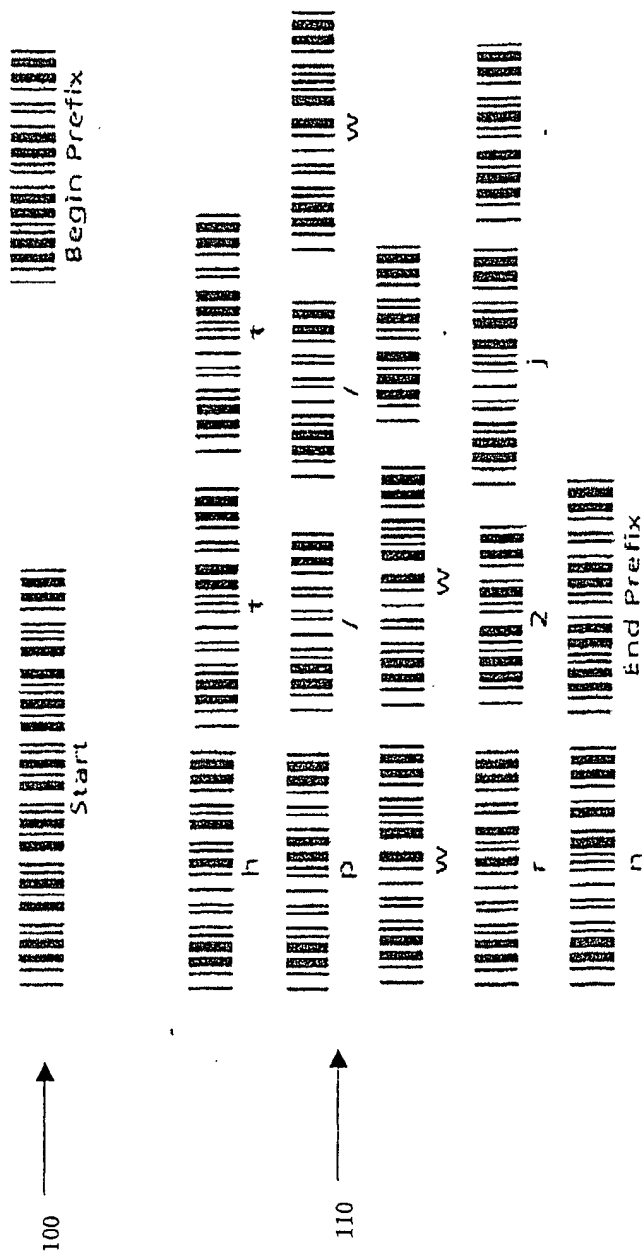


FIG. 1

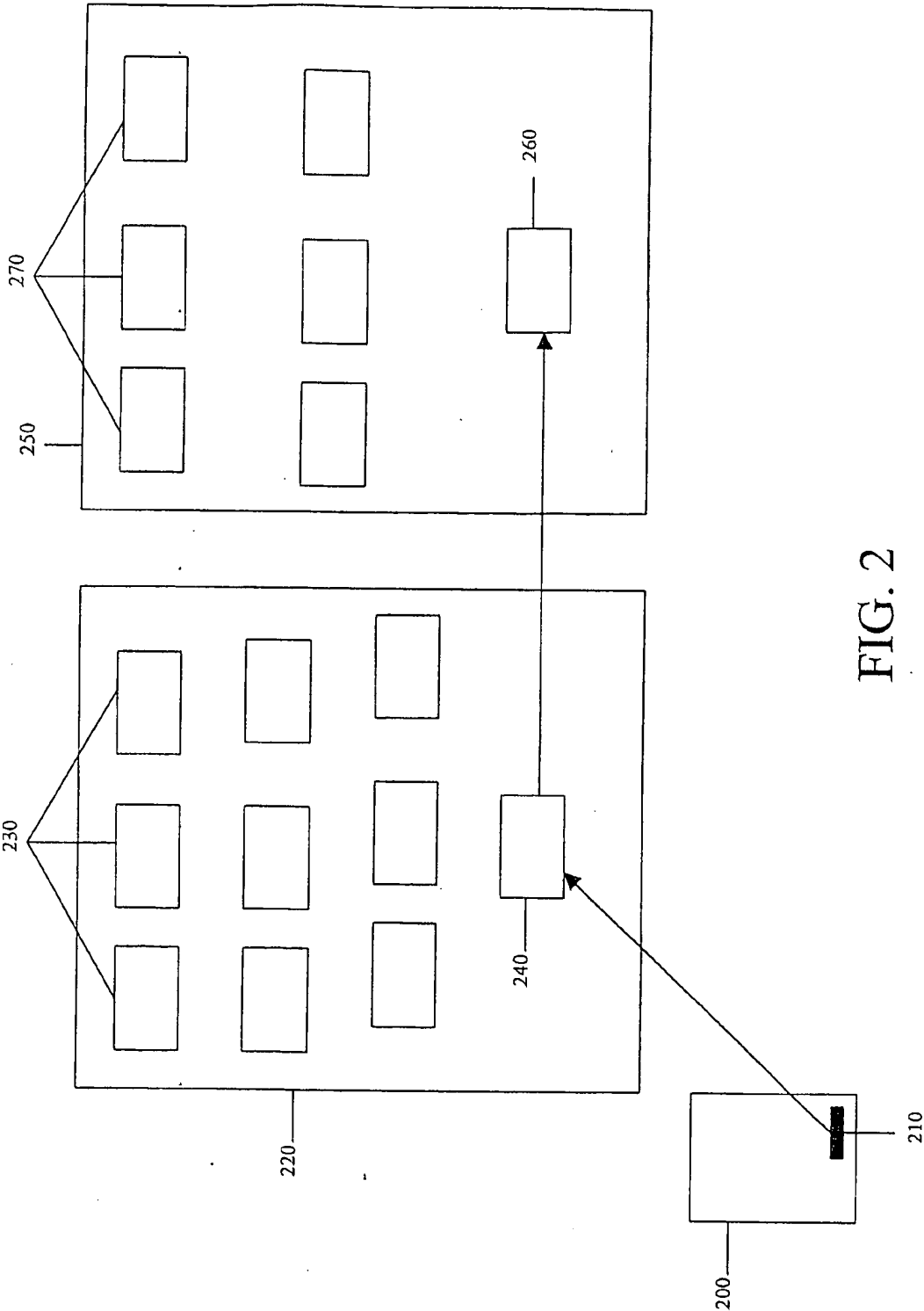


FIG. 2